

SMD Schottky Barrier Diode



SMD Diodes Specialist

CDBF0145 (Lead-free Device)

$I_o = 100 \text{ mA}$

$V_R = 45 \text{ Volts}$



Features

Designed for mounting on small surface.

Extremely thin/leadless package.

Low leakage current.
($I_R = 0.1 \mu\text{A typ. @ } V_R = 10\text{V}$)

Majority carrier conduction.

Mechanical data

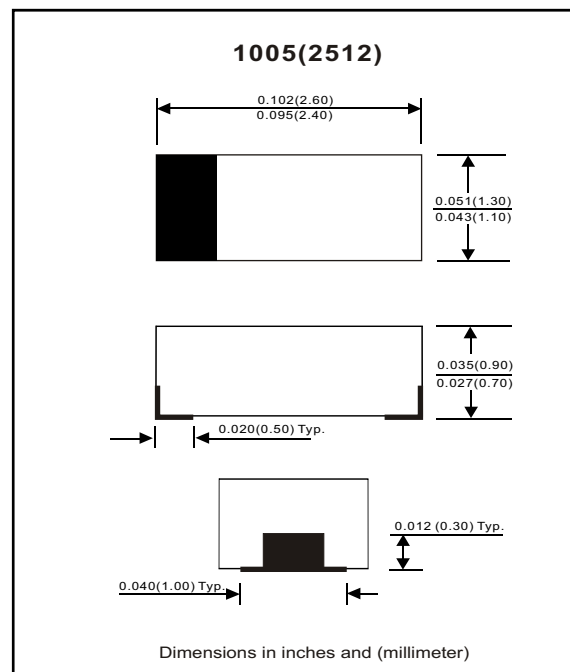
Case: 1005(2512) standard package,
molded plastic.

Terminals: Gold plated, solderable per
MIL-STD-750, method 2026.

Polarity: Indicated by cathode band.

Mounting position: Any

Weight: 0.006 gram(approx.).



Maximum Rating (at $T_A = 25^\circ\text{C}$ unless otherwise noted)

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Repetitive peak reverse voltage		V_{RRM}			50	V
Reverse voltage		V_R			45	V
Average forward current		I_o			100	mA
Forward current, surge peak	8.3 ms single half sine-wave superimposed on rate load (JEDEC method)	I_{FSM}		1000		mA
Power Dissipation		P_D			250	mW
Storage temperature		T_{STG}	-40		+125	$^\circ\text{C}$
Junction temperature		T_j			+125	$^\circ\text{C}$

Electrical Characteristics (at $T_A = 25^\circ\text{C}$ unless otherwise noted)

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Forward voltage	$I_F = 100 \text{ mA DC}$	V_F			0.55	V
Reverse current	$V_R = 10\text{V}$	I_R			1	μA
Capacitance between terminals	$F = 1 \text{ MHz}$ and 10 VDC reverse voltage	C_T		9		pF

RATING AND CHARACTERISTIC CURVES (CDBF0145)

Fig. 1 - Forward characteristics

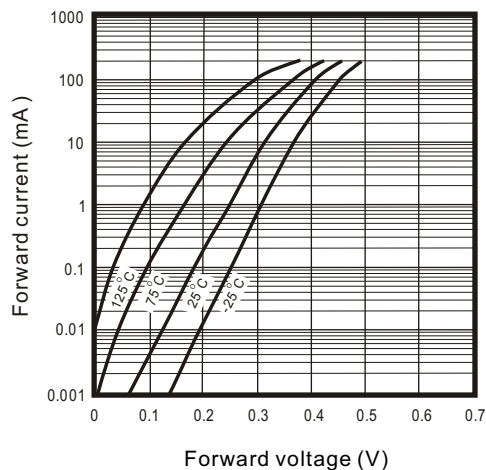


Fig. 2 - Reverse characteristics

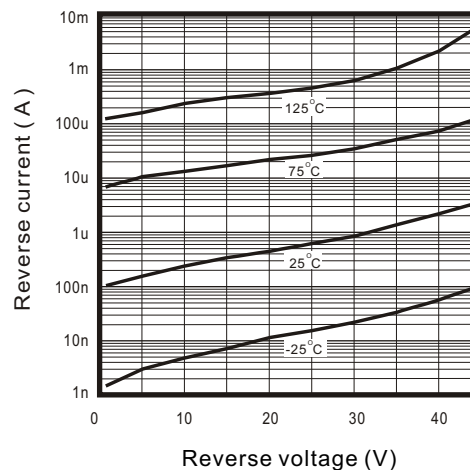


Fig.3 - Capacitance between terminals characteristics

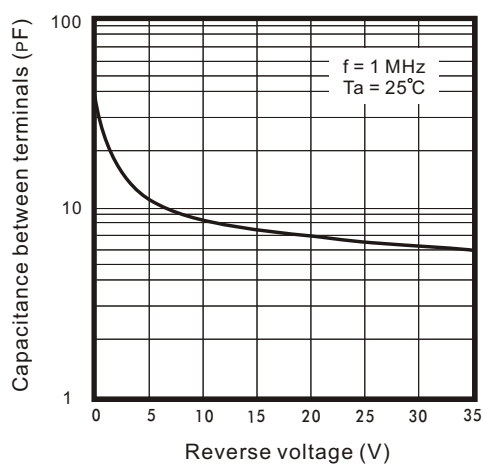


Fig.4 - Current derating curve

